

the friend and disciple of the late Mr. Lassell, and under his guidance succeeded admirably in grinding and polishing very excellent specula, one of which, a Newtonian of 15 in. diameter, he mounted equatorially, with all the best appliances, in a second Observatory with hemispherical dome. The figure of this speculum was wonderfully perfect, and elicited the warmest approval from Mr. Lassell. By a rude stroke of fate, one which denotes the rapid strides that have been made in the size of astronomical instruments in the course of one generation, Dawes's refractor mentioned above was degraded to become the finder of the new reflector. An excellent eye and remarkable mechanical skill were conspicuous in Col. Cross, and had not his time and powers been occupied by other matters, he would have earned for himself a high place among amateur astronomers. He died suddenly at the age of 64. He was elected a Fellow of the Society on April 14, 1848.

JOSEPH DREW, son of the late Joseph Drew, of the Dockyard Service, R.N., was born May 21, 1814, at Deptford. He was founder, proprietor, and editor from 1850 to 1862, of the *Southern Times*, and author of "In the Beginning," "The Mystery of Creation," "Our Home in the Stars," "The Rival Queens," "The Life of the Duke of Wellington," and other essays. He delivered gratuitously nearly 200 lectures, scientific and historical, at various institutions in the south-west of England between 1867 and 1876.

The degree of LL.D. was conferred on him by Richmond University, U.S.A., in 1874. He was a Fellow of the Geological Society, and a member of several other scientific and literary societies. He was elected a Fellow of this Society on January 13, 1871.

NATHANIEL STEDMAN GODFREY was the only child of Nathaniel Godfrey, Esq., of London. After leaving St. Catherine's College, Cambridge, he became curate at Swansea, and subsequently at Biddenham, near Bedford. He then became incumbent of Wortley, near Leeds, and after taking temporary duty at Portsea and Southsea he became the first vicar of St. Bartholomew's Church, Southsea, and occupied this position until his death, which took place, after a long and painful illness, on October 26, 1883, in the 66th year of his age. He married Caroline Ann, the second daughter of Joseph Goodhart, Esq., of Hackney. He was successful as a composer of sacred music, and published several doctrinal works, some of them of a controversial character, and all of the Evangelical type.

Mr. Godfrey possessed a fine Newtonian reflector with silver-on-glass mirror, 9-ft. focus, by Calver, which he had mounted in an Observatory of his own contrivance. In some letters to the *English Mechanic* in 1879-80 he defended reflecting telescopes, pointing out the cause of frequent complaint, and showing

how he had obtained accurate adjustment in his own case. In one of these letters he mentioned that in the course of forty-five years he had possessed about fifteen achromatic telescopes from $2\frac{1}{4}$ in. up to 7 in.; the object of the letter was to explain how the definition of a fine mirror could be made equal to that of a fine achromatic. He was elected a Fellow of the Society on December 9, 1864.

FREDERIC CHARLES GREEN was born at Bolton, and educated at Bolton and Birkenhead schools. He took the greatest interest in seamanship and nautical matters, both practical and theoretical; and all the time that he could spare from his business of bleaching cotton goods, he devoted to the working of a small sail-boat of his own, and to studying such questions as the law of storms, methods of observing at sea, &c., and he occasionally wrote to the nautical papers on these subjects. To put his knowledge to a practical test, he passed the Board of Trade Examination. It was his great endeavour to assist mates and others engaged in practical seamanship in obtaining the requisite knowledge of the theoretical part of the subject. He was not thirty years of age when he died, of consumption, at the Isle of Man, where he had gone for the sake of his health. He was elected a Fellow of the Society on January 12, 1883.

Sir HENRY DRURY HARNESS was a son of John Harness, M.D., Commissioner of the Transport Board, and was born in the year 1804. He was educated at the Royal Military Academy, Woolwich. It was a time of reaction in military affairs, and he felt the effects of this in having to suffer a delay of two years in obtaining his commission. He employed this interval in making an excursion to Mexico, where the silver mines were then attracting the attention of English adventurers. He was appointed second lieutenant in the Royal Engineers, and his first service was at Bermuda, under General Blanshard. In 1832 he was made first lieutenant. He returned to England in 1834, and was appointed an Instructor of Fortification at the Royal Military Academy, Woolwich. At this time he laid the foundations of those papers which were afterwards expanded to form a text-book of Fortification for that school. In 1840 he went to the Engineer School at Chatham, as Instructor in Surveying. At Woolwich and at Chatham he attracted his pupils, both to himself and to the subject of study, by his simple winning manner, and by his patient disposition. He became second captain in 1843. For a short time in 1844 he was Professor of Fortification at the Royal Military Academy, Woolwich. In 1845 he accepted the office of Inspector of Welsh Roads, which was established at that time, in consequence of the change from the system of maintaining them by turnpikes to that of county rates. At this time, the manner of dealing with the new railways became a subject of difficulty to the Board of Trade, and a separate Commission was appointed, of